

**DEPARTMENT of ENVIRONMENTAL SERVICES**  
**Water Supply & Pollution Control Division - Biology Bureau**

**LAKE TROPHIC DATA**

**MORPHOMETRIC:**

Lake: FOREST LAKE	Lake Area (ha):	77.58
Town: WHITEFIELD	Maximum depth (m):	6.4
County: Coos	Mean depth (m):	3.0
River Basin: Connecticut	Volume (m <sup>3</sup> ):	2318000
Latitude: 44°20'50" N	Relative depth:	0.6
Longitude: 71°40'20" W	Shore configuration:	1.12
Elevation (ft): 1106	Areal water load (m/yr):	2.96
Shore length (m): 3500	Flushing rate (yr <sup>-1</sup> ):	1.00
Watershed area (ha): 505.9	P retention coeff.:	0.75
% watershed ponded: 0.0	Lake type:	natural w/dam

**BIOLOGICAL:**

		6 February 1991	29 August 1990
DOM. PHYTOPLANKTON (% TOTAL)	#1	ASTERIONELLA 98%	DINOBRYON 60%
	#2		SYNURA 15%
	#3		ASTERIONELLA 10%
PHYTOPLANKTON ABUNDANCE (cells/mL)			975.0
CHLOROPHYLL-A (µg/L)			3.27
DOM. ZOOPLANKTON (% TOTAL)	#1	KERATELLA 30%	KERATELLA 41%
	#2	KELLICOTTIA 27%	NAUPLIUS LARVA 17%
	#3	POLYARTHRA 18%	DAPHNIA 14%
ROTIFERS/LITER		136	39
MICROCRUSTACEA/LITER		23	22
ZOOPLANKTON ABUNDANCE (#/L)		168	63
VASCULAR PLANT ABUNDANCE			Common
SECCHI DISK TRANSPARENCY (m)			4.5
BOTTOM DISSOLVED OXYGEN (mg/L)		6.5	0.0
BACTERIA (fecal col., #/100 ml)	#1		
	#2		
	#3		

**SUMMER THERMAL STRATIFICATION:**

weakly stratified

Depth of thermocline (m): None  
Hypolimnion volume (m<sup>3</sup>) : None  
Anoxic volume (m<sup>3</sup>) : 25500

**CHEMICAL:**

Lake: FOREST LAKE

Town: WHITEFIELD

	6 February 1991		29 August 1990		
DEPTH (m)	2.0	4.0	1.0		4.5
pH (units)	6.5	6.3	7.0		
A.N.C. (Alkalinity)	7.9	8.4	5.4		
NITRATE NITROGEN	< 0.05	< 0.05			
TOTAL KJELDAHL NITROGEN	0.57	0.57			
TOTAL PHOSPHORUS	0.003	0.002	0.007		0.008
CONDUCTIVITY ( $\mu$ mhos/cm)	46.0	47.5	42.1		42.1
APPARENT COLOR (cpu)	27	27	16		18
MAGNESIUM			0.77		
CALCIUM			3.1		
SODIUM			2.4		
POTASSIUM			0.60		
CHLORIDE	4	4			
SULFATE	5	4			
TN : TP	190	285			
CALCITE SATURATION INDEX			3.1		

All results in mg/L unless indicated otherwise

**TROPHIC CLASSIFICATION: 1990**

D.O. S.D. PLANT CHL TOTAL CLASS

**	2	3	0	5	Meso.
----	---	---	---	---	-------

**COMMENTS:**

1. Also known as Round Pond.
2. Dominant genera of whole water phytoplankton were Cryptomonas (25%), tiny green flagellates (25%), and Chroomonas (20%).
3. Forest Lake was previously surveyed and classified in 1979. The 1990 data resulted in two additional trophic points, and moved the lake from oligotrophic to mesotrophic. The change in trophic classification was due to a revised protocol and not to a change in water quality.

# FOREST LAKE

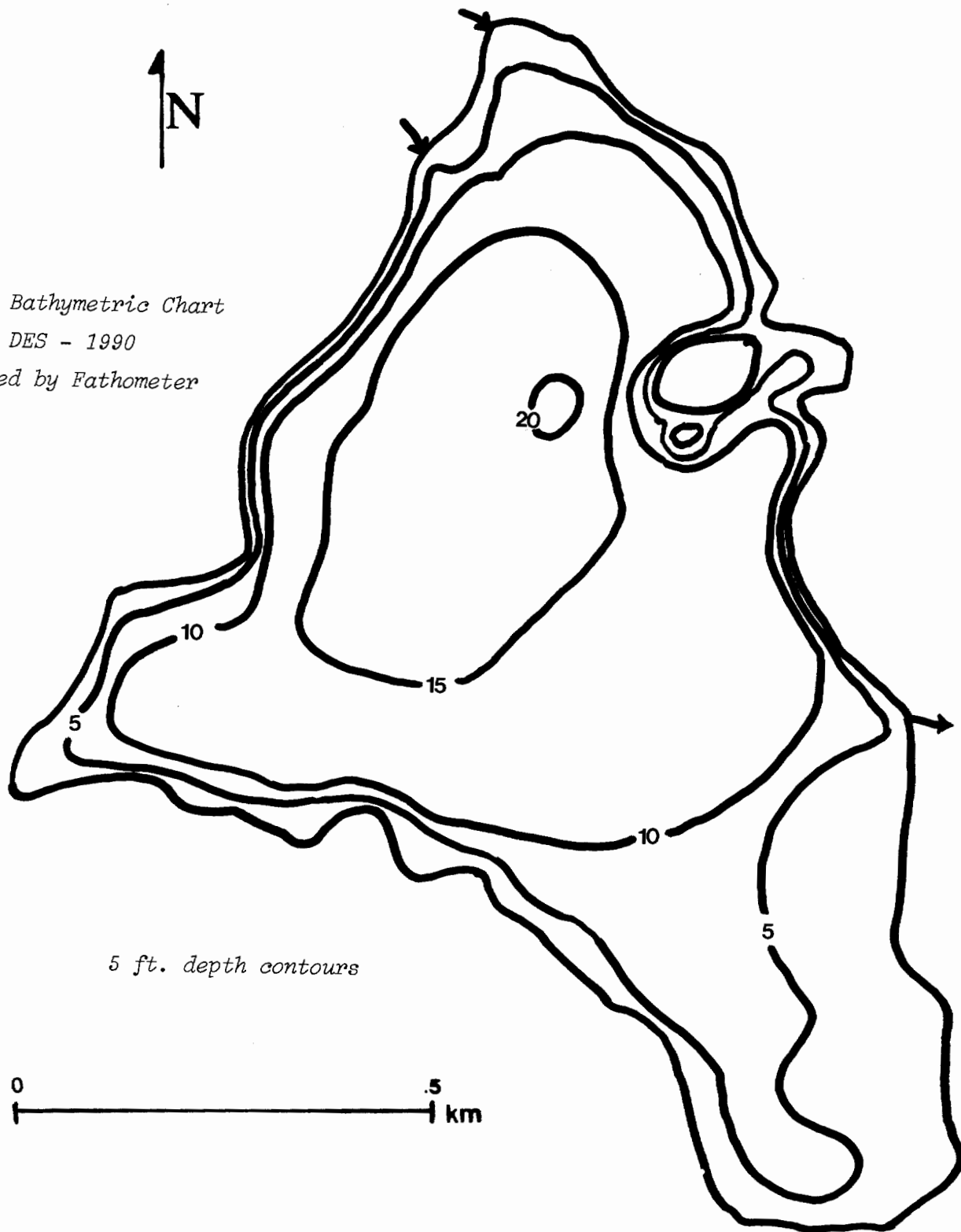
WHITEFIELD



*Rough Bathymetric Chart*

*DES - 1990*

*Sounded by Fathometer*



*5 ft. depth contours*

0 ————— .5 km

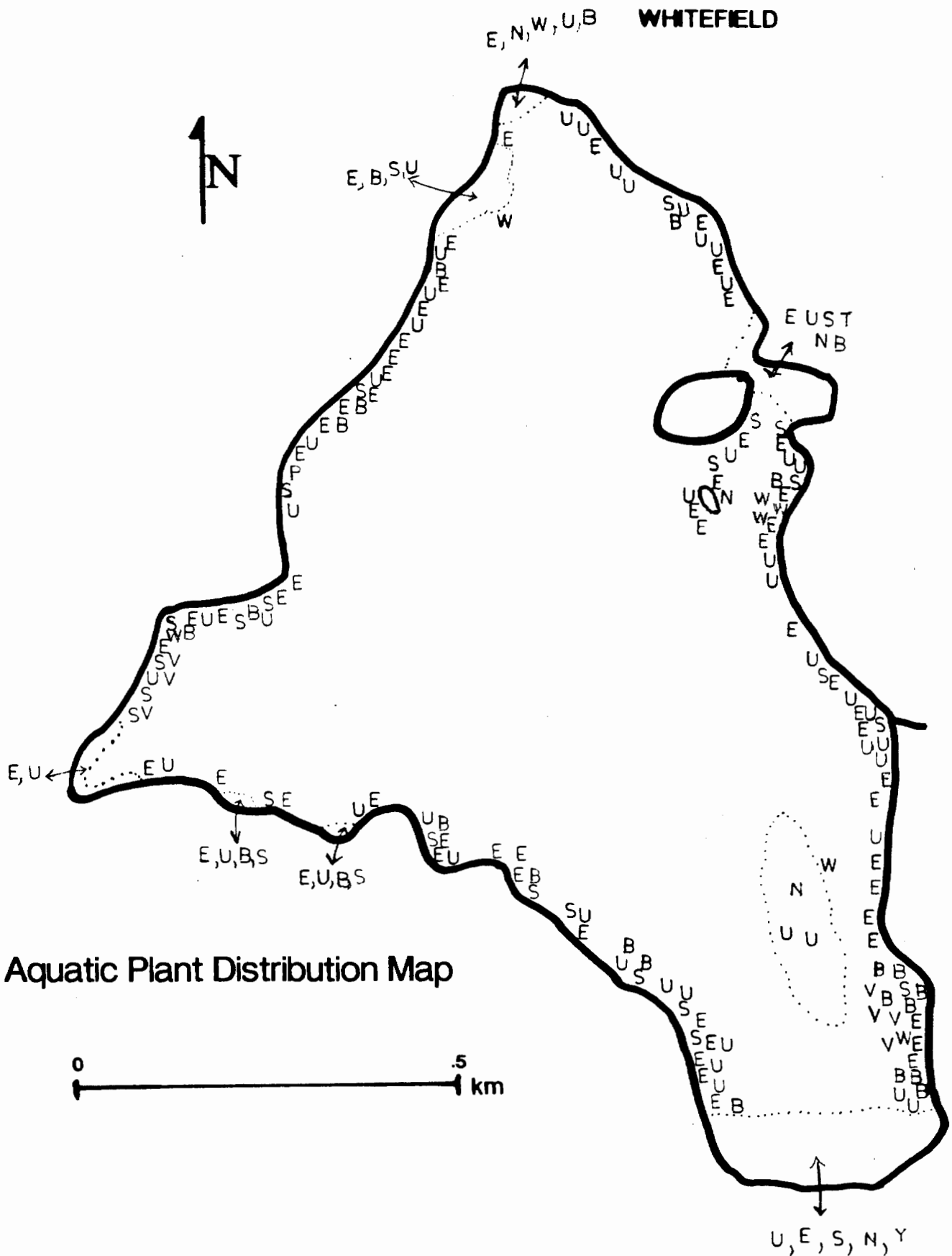
LAKE: FOREST LAKE  
DATE: 08/29/90

**WEATHER: PARTLY CLOUDY; LIGHT BREEZE**

SECCHI DISK (m): 4.5 COMMENTS:  
 BOTTOM DEPTH (m): 5.5  
 TIME:

111-101

# FOREST LAKE



[illegible]